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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/591,328  | 08/31/2006  | Hans-Peter Heuss     | 016906-0544         | 9432             |
| 22428 7590 11/25/2008<br>FOLEY AND LARDNER LLP<br>SUITE 500<br>3000 K STREET NW<br>WASHINGTON, DC 20007 |             |                      |                     |                  |
| EXAMINER  |             |                      |                     |                  |
| WALBERG, TERESA J   |             |                      |                     |                  |
| ART UNIT  |             | PAPER NUMBER         |                     |                  |
| 3744  |             |                      |                     |                  |
| MAIL DATE   |             | DELIVERY MODE        |                     |                  |
| 11/25/2008  |             | PAPER                |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/591,328

**Applicant(s)**

HEUSS ET AL.

**Examiner**

Teresa J. Walberg

**Art Unit**

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 July 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 and 20-48 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-18 and 20-48 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 31 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 10-18, and 20-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsunoda et al (US 5,582,239) in view of Eto et al (5,605,191).

Tsunoda et al disclose a heat exchanging apparatus and method of making (Fig. 4) having at least one first collecting and/or distributing device (20) for at least one liquid medium, the collecting and/or distributing device (20) being fluidly connected to a plurality of through flow devices (24) through which the medium flows at least in sections, and the collecting and/or distributing device (20) having at least one base device (21b in Fig. 5) with a support level having openings through which the through flow devices protrude, one cover device (21a) and one separating device (51) which divides the collecting and/or distributing device (20) into at least two partial spaces (Fig. 5), wherein the base device has at least one projection (on each side of 62 in Fig. 5) which protrudes inward with respect to the collecting and/or distributing device from a predefined plane of the base device (Fig. 5), and at least one section of the separating device is in at least indirect contact with at least one side face of the projection and with at least one section of the plane of the base device (Fig. 5), the inwardly

protruding projection has at least one side face which forms a substantially right angle with the plane of the base device (Fig. 7), and the separating device is arranged at said right angle (Fig. 5), a plurality of inwardly protruding projections are provided (on each side of 62 and 63 in Fig. 7), the plurality of inwardly protruding projections are arranged substantially in a straight line (Fig. 7), those side faces of the projections which are in contact with the separating device are arranged substantially in a plane (Fig. 5), the plane in which the side faces of the projections are arranged are aligned substantially perpendicular to the plane of the base device (Fig. 5).

With respect to claim 37, Tsunoda et al disclose a method for producing a heat exchanging apparatus (Fig. 4) having the following method steps: producing a base device (21b in Fig. 5) having at least one projection (on either side of 62), applying at least one connecting medium (col. 5, lines 18-19) to at least one side face of the projection, and to at least one section, which adjoins the side face of the projection, of the base device (21b in Fig. 5), arranging the separating device (51) on the base device (col. 4, lines 60-62), the separating device (51) being in at least indirect contact with the base device (21b) and the side face of the projection (Fig. 5).

Tsunoda et al does not disclose the tubes being flat and discloses the predefined plane (which supports the separating device) being more outward rather than more inward from the support level for the tubes and does not

disclose the projections being inward with respect to the predefined plane and the support plane.

However, Eto et al discloses a heat exchanging apparatus having flat tubes and including three different planes on the base of the header (22, 23, and the upper surface of 14, as shown in Fig. 7).

It would have been obvious in view of Eto et al to provide flat tubes in the heat exchanger of Tsunoda et al, the motivation being to enable easier assembly of the device, and to provide three different planes on the base of the header of Tsunoda et al, the motivation being to better support the parts of the device in the desired positions. Whether the predefined plane, which supports the separating device, is more inward or more outward with respect to the plane supporting the tubes is considered to be a matter of engineering design choice based on the desired level of rigidity of the housing.

With respect to claims 10 and 13, Tsunoda et al does not disclose the thickness of the separating device and the height of the projections. However, it would have been obvious to one of ordinary skill in the art to use any desired measurements for the device in order to adapt it for its intended use.

3. Applicant's arguments with respect to claims 1-6, 10-18, and 20-48 have been considered but are moot in view of the new ground(s) of rejection.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa J. Walberg whose telephone number is 571-272-4790. The examiner can normally be reached on M-F 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Teresa J. Walberg/  
Primary Examiner, Art Unit 3744

/TW/